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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/656,911

09/04/2003

Jeffery A. Whiteford

40-003300US

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03/25/2008

QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C.

P O BOX 458

ALAMEDA, CA 94501

EXAMINER

THOMPSON, CAMIE S

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

03/25/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/656,911	<b>Applicant(s)</b> WHITEFORD ET AL.	
	<b>Examiner</b> Camie S. Thompson	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed 12/12/07.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12, 13, 15-39 and 42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-39 and 42 is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, 13 and 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Applicant's amendment and accompanying remarks filed December 13, 2007 are acknowledged.
2. Examiner acknowledges amended claim 39.
3. Examiner acknowledges cancelled claims 40 and 41.
4. The rejection of claims 37-42 under 35 U.S.C. 102(e) as being anticipated by Lieber et al., U.S. Patent Number 7,211,464 is withdrawn due to applicant's argument.
5. The rejection of claims 1-10, 12-13, 15-18 and 31 under 35 U.S.C. 103(a) as being unpatentable over Matjazewski et al., U.S. Patent Number 7,056,045 in view of Lieber et al., U.S. Patent Number 7,211,464 is withdrawn due to applicant's argument.
6. The rejection of claims 19-30 and 32-36 under 35 U.S.C. 103(a) as being unpatentable over Matjazewski et al., U.S. Patent Number 7,056,045 in view of Ying et al., U.S. Patent Number 5,958,367 and in further view of Lieber et al., U.S. Patent Number 7,211,464 is withdrawn due to applicant's argument.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-10, 12-12 and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Gin et al., U.S. Patent Number 5,849,215.

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Gin discloses highly ordered nanocomposites comprising a matrix component and a filler component (see column 1, lines 65-68). Additionally, the Gin reference discloses that the filler component can be a semiconductor material (nanostructures) as required by the present claims. It is disclosed in column 2, lines 1-15 that matrix is a cross-linkable matrix. Figure 1 of the reference demonstrates that the nanostructures are oriented with respect to a selected axis. Also, the reference discloses that the components of the matrix self-assembles (see abstract). Figure 1 also demonstrates that the nanostructures are spherical. Figure 1 also demonstrates that the nanostructures are in a regularly-ordered array.

9. Claims 19-39 and 42 are allowed. The prior art does not provide for the recited composition comprising a plurality of structurally ordered nanostructures wherein the nanostructures further comprises one or more alignment ligands and the nanostructures comprise group III-V, group II-VI or group IV semiconductors or alloys.

### ***Response to Arguments***

10. Applicant's arguments with respect to the present claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel

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Morris, can be reached at (571) 272-3186. The fax phone number for the Group is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Bruce H Hess/

Primary Examiner, Art Unit 1794